[10191/1730]

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BOARD OF PATENT APPEALS AND INTERFERENCES

Applicants	:	Marianne HAMMER et al.
Serial No.	:	09/782,087
Filing Date	:	February 12, 2001
For	:	A PIEZOELECTRIC CERAMIC BODY HAVING SILVER-CONTAINING INTERNAL ELECTRODES
Examiner	:	Mark Osborne BUDD
Art Unit	:	2834
Confirmation No.	:	9715

Commissioner for Patents
Washington, D.C. 20231

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Date: 2/4, 2003 Reg. No. 36,197

Signature: _____
Jong H. Lee

APPENDIX TO APPELLANTS' APPEAL BRIEF
UNDER 37 C.F.R. § 1.192

S I R :

The claims involved in this appeal, claims 1-8, in their current form after entry of all amendments presented during the course of prosecution, are set forth below:

APPEALED CLAIMS:

1. A piezoelectric ceramic body comprising:

a plurality of insulating layers situated one over the other, the

insulating layers being composed of a piezoactive ceramic material; and

internal electrodes separating at least portions of the insulating layers from each other, at least a part of at least one of the internal electrodes containing a silver-containing material, the material of the at least one internal electrode having a component which at least one of reduces and inhibits a diffusion of silver from the at least one internal electrode into an insulating layer;

wherein the internal electrodes include a PZT ceramic modified by at least one of: rare-earth metals, subgroup elements, alkali metals and alkaline-earth metals.

2. The piezoelectric ceramic body according to claim 1, wherein the component contains a piezoelectric ceramic component.

3. The piezoelectric ceramic body according to claim 2, wherein the ceramic component includes Pb $(Ti_xZr_{1-x})O_3$, where $0.40 < x < 0.60$.

4. The piezoelectric ceramic body according to claim 1, wherein the material has an AgPd alloy as a main component.

5. The piezoelectric ceramic body according to claim 4, wherein the alloy contains at least 70 percent per mass Ag.

6. The piezoelectric ceramic body according to claim 1, wherein the component is present in a concentration of a maximum of 50 percent by volume, with respect to an overall volume of a material of the internal electrode.

7. The piezoelectric ceramic body according to claim 1, wherein the component contains at least one of:

rare-earth metals including at least one of La and Nd;

subgroup elements including at least one of Nb, Ta, Fe and Ni;

alkali metals including at least one of Li, Na and K; and

alkaline-earth metals including Sr.

8. The piezoelectric ceramic body according to claim 7, wherein the at least one of the rare-earth metals, the subgroup elements, the alkali metals and the alkaline-earth metals are used as dopants at a concentration of less than 8 Mol%, with respect to a material of the internal electrode.

Respectfully submitted,

KENYON & KENYON

Dated: 2/7, 2003

By: (by permission) Richard L. Mayer
Reg. No. 22,490

(by permission) R. No. 36,197

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